

Please amend the claims as follows.

1.(Currently Amended) A screen system for use in production of a coloured halftone image having a processor arrangement configured to take as input a digital original image and to generate a plurality of screens representing respective different colours or black in the image, wherein having:

a plurality of screens each representing different colours or black in the image a digital original image, each screen has a pattern of printing areas which defines a minimum mesh, each pattern has a parcel of printing areas which repeats throughout the respective screen, and two or more of the screens have different non-orthogonal minimum meshes and have parcels which correspond in shape and size, said two or more screens having different non-orthogonal minimum meshes have printing areas which extend to join first along directions other than that of their closest spacing and:

a processor arrangement configured to take as input the digital original image and to generate, using the plurality of screens, a coloured halftone image.

2.(Original) A system according to claim 1 wherein:

each minimum mesh is formed by two sets of parallel lines which lie along directions defined by equal shortest or shortest and next shortest distances between the printing areas.

3.(Original) A system according to claim 2 wherein:

at least two of the minimum meshes are non-orthogonal in that the two sets of lines are not perpendicular.

4.(Original) A system according to claim 1 wherein:

the parcels which correspond, between the two or more screens have a

parallelogram shape.

5.(Original) A system according to claim 1 wherein:

the parcels which correspond between the two or more screens have a common orientation.

6.(Original) A system according to claim 1 wherein:

the parcels are formed according to an orthogonal mesh .

7.(Original) A system according to claim 1 wherein:

the printing areas in darker tones extend along next shortest or longer distances between the areas.

8.(Previously presented) A method of preparing halftone patterns for production of a coloured image, comprising:

receiving information representing colour and tone variation in an image,
creating a plurality of printing patterns which represent different colours or black in the image,

forming each pattern from variable printing areas which define respective meshes and repeating parcels,

at least two of the patterns having different non-orthogonal minimum meshes and corresponding parcels which are substantially similar in shape and size, said at least two patterns having printing areas which extend to join first along directions other than that of their closest spacing.

9.(Original) A method according to claim 8 wherein:

the non-orthogonal meshes are each defined by two sets of parallel lines which

intersect at non-right angles.

10.(Original) A method according to claim 8 wherein:
the corresponding parcels are substantially similar in orientation.

11.(Original) A method according to claim 8 wherein:
the patterns each have different arrangements of printing areas within their
respective parcels.

12.(Original) A method according to claim 8 further comprising:
joining the printing areas in darker tones along directions of second shortest
or longer distances between the areas.

13.(Cancelled)

14.(Cancelled)

15.(Cancelled)

16.(Currently amended) A screen system for use in production of a coloured halftone
image, having:

— a processor arrangement configured to take as input a digital original image and to
generate a plurality of screens representing respective different colours or black in the
image wherein having:

a plurality of screens, each screen has a pattern of printing areas which defines a
minimum mesh, the minimum meshes of at least two screens are non-orthogonal and

have printing areas which extend to join first along directions other than that of their closest spacing.and:

a processor arrangement configured to take as input a digital original image and to generate, using the plurality of screens, a coloured halftone image.

17.(Original) A screen system according to claim 16 wherein: all of the screens have non-orthogonal meshes.

18.(Original) A method of preparing a halftone pattern, comprising:
receiving information representing tone variation in an image,
creating a pattern of printing areas which represents the variation by
forming the pattern to define a non-orthogonal minimum mesh, and
varying the printing areas by extension toward nearby areas other than their nearest neighbours.

19.(Original) A method according to claim 18 further comprising:
extending the printing areas toward their second or third nearest neighbours.

20. (Currently Amended) Apparatus which implements a screen system ~~or which~~
~~implements a method according to any one of the preceding claims according to any~~
~~one of claims 1-7, 16 and 17.~~

21.(Cancelled)

22.(Previously presented) A halftone image produced by the method set forth in Claim 8.

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23.(Previously presented) A halftone image produced by the method set forth in Claim 18.

24.(Previously presented) A halftone image produced by an apparatus according to claim 20.

25.(New) Apparatus which implements a method according to any one of claims 8-12, 18, and 19.

26.(New) A halftone image produced by an apparatus according to claim 25.